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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/658,084	09/11/2000	Nandu Gopalakrishnan	3-2-5-2-14-1-7-13	4587

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EXAMINER

WILSON, ROBERT W

ART UNIT	PAPER NUMBER
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2661

DATE MAILED: 01/30/2004

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/658,084

Applicant(s)

GOPALAKRISHNAN ET AL.

Examiner

Robert W Wilson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 and 11-21 is/are allowed.
- 6) ☒ Claim(s) 9 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>6</u> . | 6) <input type="checkbox"/> Other: |

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DETAILED ACTION

1.0 The application of Nandu Gopalakrishnan et al. for a "Integrating Power-Controlled and Rate-Controlled Transmissions On A Same Frequency Carrier" filed 09/11/2000 has been examined. Claims 1-25 are pending.

Drawings

2.0 The drawings in this application are objected to by the Draftsperson as informal. Any drawing corrections requested, but not made in the prior application should be repeated in this application if such changes are still desired. If the drawings were changed and approved during the prosecution of the prior application, a petition may be filed under 37 CFR 1.182 requesting the transfer of such drawings, provided the parent application has been abandoned. However, a copy of the drawings as originally filed must be included in the 37 CFR 1.60 application papers to indicate the original content.

Claim Rejections - 35 USC § 103

3.0 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4.0 Claims 24-25 are rejected under 35 U.S.C. 103(a) as being obvious over Vanghi et al. (U.S. Patent No.: 6,393,276 B1)

Referring to **Claim 24**, Vanghi et al. (U.S. Patent No.: 6,393,276) teaches: A method of determining a data rate (Fig 2) comprising the steps of :

Receiving signal-to-interference measurements from a plurality of receivers (It would have been obvious to one of ordinary skill in the art at the time of the invention that each BS has more than one mobile in order for the invention to work. The mobile reports SNR to the Base per Fig 2);

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Determining data rates based on available transmit power and the received signal-to-interference measurements (BSC determines data rates and channel power based upon SNR per Fig 2 or col. 5 lines 62-67)

Transmitting data to one of the plurality of the receivers at the determined data rates (The BSC determines data rate per Fig 2. It would have been obvious to one of ordinary skill in the art at the time of the invention that the assigned data rate would be utilized by the receiver in order for the invention to work)

In Addition:

Regarding **Claim 25**, scheduling the plurality of receivers for data transmission based on the determined data rates (The applicant broadly claims "scheduling". The examiner interprets the BSC setting the data rate of the mobile as "scheduling" a determined transmission rate per Fig 2.

Vanghi does not expressly call for: signal-to-interference but teaches SNR per Fig 2.

It would have been obvious to one of ordinary skill in the art at the time of the invention that SNR or signal to noise ratio is the same as signal to interference ratio because they both perform the same function.

Claim Rejections - 35 USC § 112

5.0 The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 9 and 10 are rejected relative to 112/2nd paragraph because the metes and bounds of the claim cannot be assessed.

Regarding Claim 9, there are two claim 9s.

Regarding Claim 10, Claim 10 depends on two Claim 9s.

Allowable Subject Matter

6.0 The present invention is directed to a communication device which the receiver measures SIR as well as determines data rate based upon SIR and available transmit power upon receiving an available power message from the transmitter. The receiver sends a data rate message to the transmitter based upon SIR measured at the receiver.

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The closest prior art is Vandghi (U.S. Patent No.: 6,393,276 B1), Corazza (U.S. Patent No.; 6,563,810 B1), and Larijani (U.S. Patent No.: 6,603,746 B1). The closest prior art Vandghi (U.S. Patent No.: 6,393,276 B1) discloses a mobile station that measures SNR and reports the SNR to the Base or transmitter. The Base or transmitter determines power and data rate. The mobile or receiver does not receive an available power message from the base. The closest prior art Corazza (U.S. Patent No.; 6,563,810 B1) discloses a subscriber or receiver measures SNR or SIR and determines data rate and available headroom or transmit power but does not disclose that the subscriber or receiver receives and available power message from the base or transmitter. The closest prior art Larijani (U.S. Patent No.: 6,603,746 B1) discloses a control system or receiver measures SIR and bit rate or data rate. The control system or receiver sends the power control message or available power message not the transmitter.

The closest prior art Vandghi (U.S. Patent No.: 6,393,276 B1), Corazza (U.S. Patent No.; 6,563,810 B1), and Larijani (U.S. Patent No.: 6,603,746 B1) do not disclose either singularly or in combination and do not anticipate or render obvious the following claim limitations:

“receiving an available power message at the receiver indicating future available transmit power at the transmitter” as claimed in **Claim 1**.

In Addition:

Claims 2-8 and 11-13 are allowed because they depend on **Claim 1**.

“transmitting an available power message to a receiver indicating future available transmit power at a transmitter” as claimed in **Claim 14**.

In Addition:

Claims 15-21 are allowed because they depend on **Claim 14**.

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“receiving an indication of data rate based on available transmit power at the transmitter and the measured signal-to-interference” as claimed in **Claim 22**.

In Addition:


Claim 23 is allowed because they depend on **Claim 24**.

Conclusion

7.0 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert W Wilson whose telephone number is 703/305-4102. The examiner can normally be reached on M-F (8:00-4:30).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Olms can be reached on (703) 305-4703. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.



Robert W Wilson
Examiner
Art Unit 2661

RWW
January 12, 2004.



DOUGLAS OLMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600